

Eduardo Albuquerque HARTMANN, Ms.C.

PhD Candidate at Instituto de Astrofísica de Canarias (IAC)

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I'm working on using neural networks and Simulation Based Inference to better understand the star formation history and physical properties of galaxies, also probing their Initial Mass Function. In the past I have worked on the multi-band photometric survey S-PLUS studying the phenomenon of multiple stellar populations in Galactic globular clusters.

FORMATION

mar 2024	PhD Candidate, INSTITUTO DE ASTROFISICA DE CANARIAS (IAC),
-	Project : Dissecting the formation histories of galaxies Supervisor : Dr. Ignacio Martín-Navarro, Co-supervisor : Dr. Marc Huertas-Company
jan 2021	Master of Science, UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL (UFRGS),
mar 2023	Title : The phenomenon of multiple stellar populations in Galactic globular clusters through multi-band photometry and Gaia Advisor : Prof. Dr. Charles Bonatto, Co-Advisor : Prof. Dr. Ana Chies Santos
mar 2016	B. Sc. in Physics, Emphasis in Astrophysics, UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL (UFRGS),
dec 2020	Undergraduate Thesis : Once Simple, Now Complex : Multiple Stellar Populations in Galactic Globular Clusters Advisor : Prof. Dr. Charles Bonatto, Co-Advisor : Prof. Dr. Ana Chies Santos

PUBLICATIONS

- 2025 **ZF-UDS-7329 : A relic galaxy in the early Universe**
[Hartmann, Eduardo A.](#); Ignacio Martín-Navarro; Marc Huertas-Company; João P. V. Benedetti; ...
Astronomy & Astrophysics, Volume 694, id.L7, 5 pp., doi:10.1051/0004-6361/202452781
- 2024 **The Fourth S-PLUS Data Release : 12-filter photometry covering 3000 square degrees in the southern hemisphere**
Herpich, F. R.; Almeida-Fernandes, F.; Oliveira Schwarz, G. B.; ...; [Hartmann, Eduardo A.](#); ...
Astronomy & Astrophysics, Volume 689, id.A249, 25 pp., doi:10.1051/0004-6361/202449725
- 2023 **Rubin Observatory LSST Stars Milky Way and Local Volume Star Clusters Roadmap**
Usher, Christopher; Dage, Kristen C.; Girardi, Léo; ...; [Hartmann, Eduardo A.](#); ...
PASP, Volume 135, Issue 1049, id.074201, 24 pp., doi:10.1088/1538-3873/ace3f7
- 2022 **S-PLUS : Exploring wide field properties of multiple populations in galactic globular clusters at different metallicities**
[Eduardo A. Hartmann](#), Charles J. Bonatto, Ana L. Chies-Santos, Javier Alonso-García, Nate Bastian, et al.
MNRAS, Volume 515, Issue 3, pp.4191-4200, doi:10.1093/mnras/stac1411
- 2022 **Data Release 2 of S-PLUS : Accurate template-fitting based photometry covering 1000 deg² in 12 optical filters**
Almeida-Fernandes F., SamPedro L., Herpich F. R., Molino A., Barbosa C. E., ..., [Hartmann, E. A.](#), ...
MNRAS, Volume 511, Issue 3, pp.4590-4618 doi:10.1093/mnras/stac284
- 2019 **The Southern Photometric Local Universe Survey (S-PLUS) : improved SEDs, morphologies, and red-shifts with 12 optical filters**
Mendes de Oliveira C., Ribeiro T., Schoenell W., Kanaan A., Overzier R. A., ..., [Hartmann E. A.](#), ...
MNRAS, Volume 489, Issue 1, p.241-267, doi:10.1093/mnras/stz1985

RESEARCH EXPERIENCE

- nov 2019 **Visit to Liverpool John Moores University, UK**
Two week visit under the supervision of Prof. Dr. Nate Bastian.
- oct 2017 - 2020 **Iniciação Científica Fellowship**, Universidade Federal do Rio Grande do Sul (UFRGS), CNPq - FAPERGS
Advisor : Prof. Dr. Charles Bonatto, Co-Advisor : Prof. Dr. Ana Chies Santos
- Project Title : *Traçando múltiplas populações estelares em aglomerados globulares Galácticos com o S-PLUS*

AWARDS AND HONORS

- sep 2019 **Highlighted Presentation**,
XXXI Salão de Iniciação Científica, UFRGS
- 2019 **Honorable Mention - Poster**,
XLIII Annual Meeting SAB
- sep 2018 **Highlighted Presentation**,
XXX Salão de Iniciação Científica, UFRGS

OUTREACH AND STUDENT REPRESENTATION

- 2022 **Student Representative**,
Student representative in the Post Graduate Commission.
- 2016, 2017, 2018, **UFRGS Open Campus Day**, Volunteer
- 2019, 2022 Talks about astrophysical concepts such as the solar system, stars, galaxies, how a telescope works and the career of Astrophysics.
- 2018 - 2020 **AstroUFRGS**, Volunteer
Social media outreach program from the University's Astronomy Department, including Facebook, Instagram, Twitter and interview series with the department's professors.

CONFERENCES, SCHOOLS AND PRESENTED WORKS

- may 2025 **SBI for Galaxy Evolution**
Oral Presentation. Title : *Empirically predicting emission lines and deriving galaxy properties in DESI*
- oct 2024 **XXXV Canary Islands Winter School of Astrophysics**
Baryonic Cycle Across Space and Time
- sep 2022 **XLV Annual Meeting SAB**
Oral Presentation. Title : *The S-PLUS — GAIA view of radial trends of multiple stellar populations in galactic globular clusters at different metallicities*
- jun 2022 **Summer School in Astrostatistics and Astroinformatics**, Pennsylvania State university
- dec 2021 **16th S-PLUS Meeting (virtual)**
Oral Presentation. Title : *Probing multiple populations in Galactic globular clusters at different metallicities using S-PLUS*
- sep 2020 **XXXII Salão de Iniciação Científica (virtual)**, UFRGS
Oral and poster presentation.
- oct 2019 **12th S-PLUS Meeting**
Oral Presentation. Title : *Galactic globular clusters in the S-PLUS*
- sep 2019 **XXXI Salão de Iniciação Científica**, UFRGS
Oral and Poster presentation. Title : *Traçando múltiplas populações estelares em aglomerados globulares Galácticos com o S-PLUS*
- 2019 **XLIII Annual Meeting SAB**
Poster presentation. Title : *Galactic globular clusters in the multi-band survey S-PLUS*
- sep 2018 **XXX Salão de Iniciação Científica**, UFRGS
Oral and Poster Presentation. Title : *Traçando múltiplas populações estelares em aglomerados globulares Galácticos*
- sep 2018 **10th S-PLUS Meeting**
Oral Presentation. Title : *Tracing multiple populations in Galactic globular clusters : the case of 47Tuc*

LANGUAGES

Portuguese ● ● ● ● ●
English ● ● ● ● ●
Spanish ● ● ● ○ ○

SKILLS

Programming Languages Python, R, LaTeX, SQL

Software and Tools Linux/Unix, SAODS9, PyRAF/IRAF, TopCat, Dophot